



Carolina Material Technologies Inc.
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Carolina Material Technologies specializes in dry bulk and liquid storage applications. Our team members and partners provide consulting, engineering design, specification development, prompt equipment quotes, equipment supply and field installation services.

At CMT, we are often asked about tank construction types and silo comparisons. There are high and low quality containment approaches offered in the marketplace today. In selecting storage, we endorse and provide Tank Connection silos and tanks, who have a proven track record in the field.

We offer Bolted Flat Panel, Field-Weld & Shop-Weld Tank Construction.

The construction types listed below all have correct applications and favored markets. In the right applications (listed), these products are economical and practical choices.

Storage Silos and Tanks Offered

Dry Bulk & Liquid Review:	Flanged Panel (API)	Flat Panel (FP)	Field Welded (FW)	Shop Welded (SW)
STORED PRODUCT APPLICATION	Dry Bulk	Dry Bulk, Liquid & Power	Dry Bulk, Liquid, Power & Petroleum	Dry Bulk & Liquid
DESIGN INTEGRITY	Proven design supported by design calculations & Engineer's stamp.	Proven design supported by design calculations & Engineer's stamp.	Heavier design wt. than bolted Proven design supported by calculations & Engineer's stamp.	Proven design supported by design calculations & Engineer's stamp.
DRY BULK DESIGN CONSIDERATIONS Hopper design Shell design Skirt supports	Bent plate hopper - Light design Limited up to 1/4" plate Stiffeners utilized	Industrial process - Heavy design Limited up to 1/2" plate None or WF structural supports	Full penetration hopper connection Typically, limited up to 1" plate No stiffeners required	Full penetration hopper connection Limited up to 3/8" plate No stiffeners required
COATINGS Internal External	Internal coatings formulated for dry bulk and liquid applications. External coatings formulated for exposed environment.	Internal coatings formulated for dry bulk and liquid applications. External coatings formulated for exposed environment.	Dry - Typically no interior coating Liquid - NSF coatings field applied External coatings field applied	Internal coatings formulated for dry bulk and liquid applications. External coatings formulated for exposed environment.
INSTALLED QUALITY	Average - Dry bulk applications	Best - Dry Bulk & Liquids *	Good - Dry, Liquid & Petroleum	Best - Dry Bulk & Liquids
CUSTOMER VALUE	Average - Dry Bulk Poor Value - Liquids	Best Value - Dry Bulk Best Value - Liquids	Good Value - Broad range of applications	Best Value - Liquid & Dry Bulk

* Field installation utilizes state-of-the-art jacking systems.